

## ABSTRACT

The present invention is directed to methods and compositions related to  $\alpha 7$  acetylcholine nicotinic receptor genes, in particular, the human  $\alpha 7$  nicotinic acetylcholine receptor gene. This  $\alpha 7$  acetylcholine nicotinic receptor gene is associated with the pathophysiological aspects of the disease schizophrenia. The present invention further provides methods and compositions to screen populations for abnormal  $\alpha 7$ , as well as methods and compositions for development of therapeutics.